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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 34501A

Agilent 34501A 32 Channel Armature Relay Multiplexer The HP 34501A is a 32-channel armature relay multiplexer / matrix module for the HP 3235 switching mainframe. OEM 34501A listings describe a 32-channel armature relay mux/matrix with 2 A maximum current. Sibling 34501B is the related 3235 mux/matrix; sibling 34501M is the 4×8 matrix (32 crosspoints, 1 MHz) and those 34501M numbers are not assigned to 34501A. Terminal-block sibling 34501BT isadifferent remaining-queue class. 32-channel armature multiplexing in HP 3235 ATE mainframes that specify 34501A. The HP 34501A is a 32-channel armature relay multiplexer / matrix module for the HP 3235 switching mainframe. OEM 34501A listings describe a 32-channel armature relay mux/matrix with 2 A maximum current. Sibling 34501B is the related 3235 mux/matrix; sibling 34501M is the 4×8 matrix (32 crosspoints, 1 MHz) and those 34501M numbers are not assigned to 34501A. Terminal-block sibling 34501BT isadifferent remaining-queue class. 32-channel armature multiplexing in HP 3235 ATE mainframes that specify 34501A.



MODEL

**Agilent / Keysight
34501A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

34501A

LISTING

<https://aumictechlabs.com/products/34501a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 34501A is a low-frequency relay multiplexer module designed for data acquisition and signal switching applications. This 32-channel module integrates into Keysight data acquisition chassis to enable high and low switching across 2-wire configurations. Built

around armature relay technology, the 34501A delivers reliable channel selection and routing for measurement systems requiring multi-point data collection and switched signal paths.

Technical Specifications

Channel Count: 32 simultaneous channels

Relay Type: Armature relay

Switching Capability: High and low switching

DC Voltage Range: 0–250 V maximum

AC Voltage Range: 0–250 V maximum

Configuration: 2-wire supported

Form Factor: Proprietary module interface

Key Features

- Multi-channel relay switching with simultaneous access to 32 independent channels
- Dual high/low switching paths for flexible measurement routing
- Armature relay design for cost-effective, reliable switching performance
- Operates across voltage ranges to 250 V DC and AC
- Compact module form factor for space-constrained chassis installations

Typical Applications

The 34501A addresses data acquisition systems requiring automated channel selection, multi-point sensor switching, and signal routing across moderate voltage levels. Common uses include laboratory test automation, environmental monitoring networks, and industrial data collection where manual switching overhead must be eliminated.

Compatibility & Integration

The 34501A functions as a plug-in module within the Keysight 34980A Multifunction Data Acquisition Chassis and compatible data acquisition systems. Its proprietary bus interface integrates with the host chassis, allowing centralized control of all 32 switching channels through the chassis command interface. Modular architecture permits stacking of multiple relay modules for expanded channel density within a single chassis.

34501A Characteristics / Specifications

PARAMETER	VALUE
Model	34501A
Instrument Type	32-channel armature relay multiplexer
Manufacturer	Hewlett Packard / Agilent
Literature	HP 34501A 32-channel armature relay mux/matrix listings for 3235
Host Mainframe	HP 3235 / 3235A switching mainframe
Channel Count	32
Maximum Current	2 A
Relay Class	armature
Switch Function	multiplexer / matrix as listed on 34501A/B 3235 cards
Sibling Matrix	34501M 4×8 matrix isadifferent SKU
Sibling Terminal	34501BT 32-channel MUX terminal block isadifferent SKU
Sibling B	34501B related 3235 mux/matrix
Brand Lineage	HP / Agilent / Keysight
Form Factor	3235 plug-in multiplexer module
Ate Class	ATE signal multiplexing
System Role	32-channel armature scan/switch
Family	HP 3235 345xx switch modules
Application Class	data acquisition / ATE switching
Queue Title	Agilent/Keysight 34501A
Documentation Type	OEM 34501A 3235 mux listing
Connector Class	3235 module connectors plus 34501BT-class terminal block when fitted
Environment Class	3235 mainframe ambient
Control Class	3235 mainframe programming

34501A Specifications

PARAMETER	VALUE
Agilent 34501A 32 Channel Armature Relay Multiplexer	Overview
Applications	32-channel armature multiplexing in HP 3235 ATE mainframes that specify 34501A.
Key Features	32-channel armature relay multiplexer / matrix
Sibling 34501M is the 4×8 matrix SKU	Sibling 34501BT is the terminal block
Technical Specifications	Model: 34501A

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Relay Class	armature
Switch Function	multiplexer / matrix as listed on 34501A/B 3235 cards
Sibling Matrix	34501M 4x8 matrix isadifferent SKU
Sibling Terminal	34501BT 32-channel MUX terminal block isadifferent SKU
Sibling B	34501B related 3235 mux/matrix
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Control Class	3235 mainframe programming
Notes	
From HP 34501A 32-channel armature mux/matrix listings for the 3235 mainframe (32 channels, 2 A). 34501M 4x8 / 1 MHz / 42 Vdc figures are not assigned to 34501A.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.